

CLAIMS

What is claimed is:

1. A deflector for a discharge outlet of a tailings conveyor of an agricultural combine, comprising:
an upper deflector panel positionable adjacent to an upper region of the discharge outlet so as to be located in a path of an upwardly directed flow of tailings discharged therethrough for deflecting the flow downwardly and dispersing the flow vertically; and
a side deflector panel positionable adjacent a side region of the outlet so as to be located in the path of at least a portion of the upwardly directed flow of tailings for deflecting and dispersing the flow horizontally.
2. The deflector of claim 1, wherein the discharge outlet is disposed above and adjacent to a side of an upwardly facing sieve surface of a cleaning system of the combine, and the deflector panels are mountable in relation to the discharge outlet for deflecting and dispersing the flow of tailings in a predetermined pattern over the surface region.
3. The deflector of claim 2, wherein the surface region has predetermined side-to-side and end-to-end extents and the deflector panels are mountable in relation to the discharge outlet for deflecting and dispersing the flow of tailings generally evenly over the surface region.
4. The deflector of claim 1, wherein the deflector panels are attached to a mounting element mountable around at least a portion of the discharge outlet.

5. The deflector of claim 1, wherein the path of the upwardly directed flow of tailings has a predetermined side-to-side extent and the side deflector panel is positionable so as to extend across at least a substantial portion of the side-to-side extent so as to horizontally deflect and disperse at least a substantial portion of the flow.
6. The deflector of claim 1, wherein the path of the upwardly directed flow of tailings has a predetermined side-to-side extent and the side deflector panel is positionable so as to extend partially across the side-to-side extent so as to horizontally deflect and disperse only a portion of the flow.
7. The deflector of claim 1, wherein the side deflector panel is oriented at from about a 30 to about a 40 degree angle to the flow.
8. The deflector of claim 1, wherein the side deflector panel is positionable relative to the discharge outlet so as to be impinged by substantially all of the upwardly directed tailings flow.
9. The deflector of claim 1, wherein the deflector is open downwardly and in a sideward direction opposite the side deflector panel.
10. A tailings deflector for a discharge outlet of a tailings conveyor of an agricultural combine through which tailings will be discharged along an upwardly directed flow path, comprising:
 - an upper deflector panel positionable adjacent to and above an upper region of the outlet so as to extend downwardly into the flow path at an acute angle to horizontal; and
 - a single side deflector panel positionable adjacent a side region of the outlet so as to extend into the flow path at an acute angle thereto,

wherein a flow of the tailings discharged through the outlet along the flow path will impinge the panels and be deflected downwardly and outwardly away from the single side deflector panel so as to be dispersed over an area beneath the outlet.

11. The deflector of claim 10, wherein the discharge outlet is disposed above and adjacent to a side of an upwardly facing sieve surface of a cleaning system of the combine, and the deflector panels are mountable in relation to the discharge outlet for deflecting and dispersing the flow of tailings in a predetermined pattern over the surface region.
12. The deflector of claim 10, wherein the side deflector panel is oriented at from about a 30 to about a 40 degree angle to the flow.
13. The deflector of claim 10, wherein the side deflector panel extends into the flow path so as to be impinged by substantially all of the tailings flow.
14. The deflector of claim 10, wherein the deflector is open downwardly and in a sideward direction opposite the side deflector panel.
15. The deflector of claim 10, wherein the flow of tailings has a predetermined side-to-side extent and the side deflector panel has an extent so as to extend partially across the side-to-side extent so as to horizontally deflect and disperse only a portion of the flow.
16. A tailings conveyor for an agricultural combine for returning tailings to a sieve of a cleaning system of the combine, comprising:
 - a housing including an upwardly directed chute including a discharge opening adjacent to an upper end of the chute above a region of the sieve;

at least one rotary impeller disposed in the housing and operable for propelling a flow of tailings through the chute and out of the housing through the discharge opening along an upwardly directed flow path oriented at an acute angle to horizontal, the region having a predetermined first horizontal extent generally in the direction of the flow path and a predetermined second horizontal extent generally perpendicular to the first extent; and

deflector panels supported above and along one side of the discharge opening so as to extend downwardly into the flow path at an acute angle to horizontal and sidewardly into the flow path at an acute angle thereto, respectively, the deflector panels having sufficient extents in the direction of the flow path such that at least a substantial portion of the flow of tailings discharged through the discharge opening will impinge the panels and be deflected downwardly and dispersed substantially equally over the region of the sieve.